

REMARKS

Reconsideration of the application is requested.

Applicants acknowledge the Examiner's confirmation of receipt of applicants' certified copies of the associated priority documents for the German Patent Application DE 199 46 994.6, filed September 30, 1999 supporting the claim for priority under 35 U.S.C. § 119 and for the International Patent Application PCT/EP00/09457, filed September 27, 2000 under 35 U.S.C. § 120.

Claims 1-4 and 6-19 are now in the application. Claims 1 and 10-13 have been amended. Claim 19 has been added. *Claim 5 has been canceled to facilitate prosecution of the instant application.*

In item 3 on page 2 of the above-identified Office Action, claims 1, 6, 9, and 10 have been rejected as being fully anticipated by U.S. Patent No. 5,584,275 to Taruya (hereinafter '275) under 35 U.S.C. § 102(b).

In item 9 on page 4 of the above-identified Office Action, claims 2-4 and 11-14 have been rejected as being obvious over '275 in view of U.S. Patent No. 5,745,352 to Sandri (hereinafter '352) under 35 U.S.C. §103(a).

In item 13 on page 6 of the above-identified Office Action, claim 15 has been rejected as being obvious over '275 in view of U.S. Patent No. 6,166,927 to *Farrington* (hereinafter '927) under 35 U.S.C. §103(a).

Finally, applicants appreciatively acknowledge the Examiner's statement that claims 5,7-8, and 16-18 "would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims." The previously mentioned rejections have been noted and the claims have been amended according to the recommendation of the Examiner. More specifically, claims 1 and 10 have been amended to incorporate the patentable limitations noted in the above-identified Office Action relative to claim 5.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful. Claim 1 calls for, *inter alia*, a method for generating a control signal including the steps of:

applying a voltage to an inductor using an electronic switch at a beginning of a time measurement;

measuring a current rise at the inductor and a voltage drop across the electronic switch;

logically combining the current rise at the inductor and the voltage drop across the electronic switch in a logic circuit configured to generate the control signal; and

outputting the control signal.

The '275 reference discloses an ignition apparatus for an internal combustion engine. The associated circuit configuration includes a battery 2 connected to a transformer 13 with a primary coil 11 connected in series with a power transistor 14. The power transistor 14 is a bipolar transistor that is activated by control circuit 4, which includes a bipolar transistor 42 configured to be switched between the base and emitter terminal of the power transistor 14, thereby activating the power transistor 14 in a conductive and blocking fashion. Figs. 3a to 3c and the description provided in the specification of '275 in col. 4, lines 40 to 47 indicate that a sensor circuit 5 emits an ignition signal when the base emitter voltage of the bipolar transistor 14 either exceeds a reference voltage or if the current i_{11} through the primary coil exceeds a predetermined current threshold value. '275 does not register the current

increase through the coil and the voltage drop above the power switch for generating a control signal as in the instant application.

Clearly, '275 does not show "measuring a current rise at the inductor and a voltage drop across the electronic switch" and "logically combining the current rise at the inductor and the voltage drop across the electronic switch in a logic circuit" as recited in claim 1 of the instant application.

The '352 reference discloses A DC to DC converter that reduces switching losses through a pulse-skipping mode that inhibits turn-off commands as long as a current through an inductor remains below a minimum threshold value. More specifically, a sensing resistor, which monitors the current flowing through the inductor on a power circuit in the converter, provides a relative voltage (col. 3, lines 54-56). The converter also includes a field effect transistor as indicated in claim 12 and col. 3, lines 56-60. However, '352 does not teach or suggest "measuring a current rise at the inductor and a voltage drop across the electronic switch" and "logically combining the current rise at the inductor and the voltage drop across the electronic switch in a logic circuit" as recited in claim 1 of the instant application.

The '927 reference discloses a push-pull power converter circuit. The Office Action improperly uses '927 to show that the previously mentioned field-effect transistor may also be an insulated gate bipolar transistor. Rather '927 shows a first switch Q1 having a source terminal S1 and gate terminal DR1 in which the source and drain are short-circuited when a voltage exceeding the threshold voltage is applied across the gate and drain.

Clearly, '927 does not teach or suggest "measuring a current rise at the inductor and a voltage drop across the electronic switch" and "logically combining the current rise at the inductor and the voltage drop across the electronic switch in a logic circuit" as recited in claim 1 of the instant application.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claims 1 and 10. Claims 1 and 10 are, therefore, believed to be patentable over the art. The dependent claims 2-4, 6-9, and 11-19 are believed to be patentable as well because they all are ultimately dependent on either claim 1 or claim 10.

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In view of the foregoing, applicant respectfully submits that claims 1-4 and 6-19 are in condition for immediate allowance. Accordingly, reconsideration and allowance of claims 1-4 and 6-19 are respectfully solicited.

In the event that the Examiner should still find any remaining impediment to the prompt allowance of the claims, counsel would appreciate receiving a telephone call so that, if possible, patentable language can be worked out.

Petition for extension is herewith made. The extension fee for response within a period of three months pursuant to Section 1.136(a) in the amount of \$950.00 in accordance with Section 1.17 is enclosed herewith.

In addition, applicants have included an Information Disclosure Statement and the associated fee in the amount of \$180.00 for a German reference that recently came to counsel's attention, originally cited during prosecution of the German Patent Application DE 199 46 994.6, but has not yet been brought to the attention of the U.S. Patent Office. For your benefit, applicants included the UK Patent Application associated with the aforementioned reference.

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Please charge any other fees that might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner and Greenberg, P.A., No. 12-1099.

Respectfully submitted,


For Applicants

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KHF:cgm

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